S
333.7968
N7mstm
1993?
Money-saving
tips for Montana
motorists

S
333.7968
N7mstm
1993?

MONEY-SAVING TIPS FOR MONTANA MOTORISTS

MONTANA STATE LIBRARY
S 333.7968 N7mstm 1993? c.1
Money-saving tips for Montana motorists.
3 0864 00084818 7

Get More Montana Per Gallon

STATE DOCUMENTS COLLECTION
AUG 4 1993
MONTANA STATE LIBRARY
1515 E. 6th AVE.
HELENA, MONTANA 59620

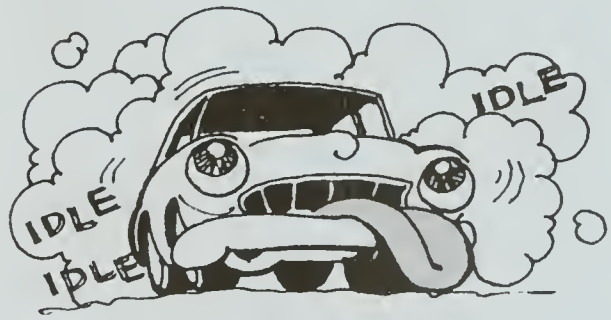
PLEASE RETURN

GOING FARTHER ON GAS

Most of us learned to drive when gasoline was cheap and plentiful. Now we have to change our thinking, select our cars for fuel economy and learn new driving habits that help conserve gasoline.

The 30-Second Warm-Up

- Idle your engine during its initial start no more than 30 seconds, even on the coldest day. (Car engines warm faster when they are in motion.)
- Idling more than 30 seconds not only wastes gas, but does harm to your engine. The oil can't do its best lubricating job unless the car is in motion.
- Depress the accelerator once to set the choke...added pumping only wastes gas.
- Don't rev up the engine and then quickly shut it off. This dumps raw gasoline into the cylinder walls, washing away the protective oil film and increasing engine wear when you restart. It also wastes fuel.



Avoid Unnecessary Idling

Every two minutes of idling is a mile of driving wasted. Turn off your engine instead of idling:

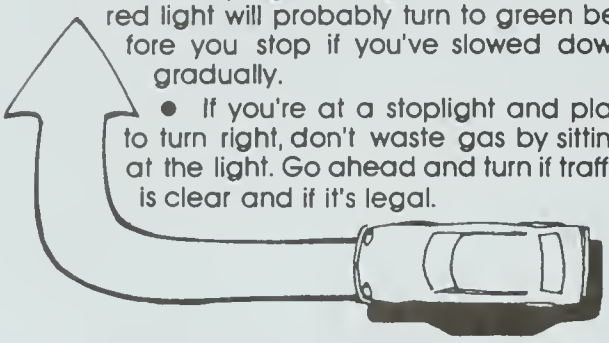
- At drive-in facilities...such as banks or restaurants.
- While waiting for someone.

It takes less gas to restart your car after your engine has warmed than to idle it for more than a minute. Generally there's no need to press the accelerator to restart the engine.

Anticipate Driving Conditions

The smoother your driving pattern, the better your fuel economy. Anticipate:

- Keep an eye on the traffic at least two cars ahead and avoid stop-and-go gas-wasting situations.
- Learn to judge stoplight durations; that red light will probably turn to green before you stop if you've slowed down gradually.
- If you're at a stoplight and plan to turn right, don't waste gas by sitting at the light. Go ahead and turn if traffic is clear and if it's legal.



- Unnecessary braking and stopping means more acceleration and more gas to get back to speed. Each time you double your rate of acceleration, you use **twice** the amount of gas than if you cruised at a steady speed.
- Any car momentum you can conserve is better than none. It takes up to six times as much gas to move a car from a dead stop than it does if it is moving just a few miles per hour.
- Varying your speed on the highway–even by as little as five mph–can reduce fuel economy by as much as 1.3 miles per gallon.
- Don't tailgate. Much gas is wasted by driving too close to the car ahead. You must constantly brake and accelerate, brake and accelerate.

Drive At Moderate Speeds

- Observing the speed limit saves fuel and money:

  Most cars get about 21% better mileage at 55 than at 70. The figure increases to 28% better mileage driving at 50 rather than 70. (You're also breaking the law driving at 70.)
- Driving below the speed limit can produce even greater gasoline savings.

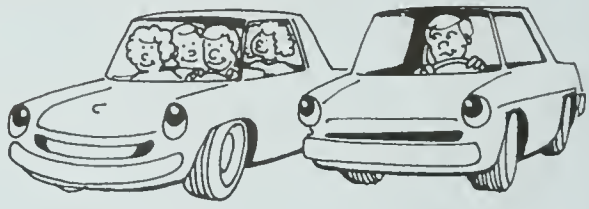
Hill Climbing Techniques

Driving on hills uses more gas than driving on flat roads. You can save gas:

- Build up speed early when approaching a hill, to avoid fuel-robbing hard acceleration on the up-grade. The momentum will carry you over the crest, and gravity will help you down the other side.
- Shift up a manual transmission as soon as you can without "lugging" the engine. If the engine does "lug" or stumble, the low-vacuum carburetor condition that results will cause increased fuel consumption.

These little tricks can save you a gallon of gas out of every tankful if you drive often in hilly terrain.

Join A Car Pool



Many drivers have made the switch to car pooling, and prefer it. The daily commuter can:

- Save between $300 and $1000 a year on gasoline costs.
- Save considerable wear and tear on vehicle.
- Save hundreds of gallons of precious fuel.

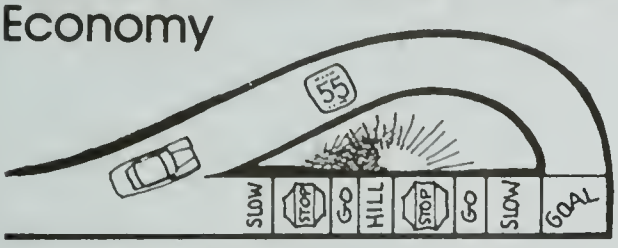
Avoid Short Trips... Consolidate Your Driving

Auto engines operate most efficiently at about 180°, after you've been driving about 15 minutes.

Those short trips, under five miles, prove most costly since your engine can't warm quickly to offer good gas mileage. Your car burns 20% more fuel when it's asked to perform with a cold engine.

- Plan ahead. Combine your shopping errands.
- Include your shopping trips on your normal commuting trip.
- Travel during off-hours when there's less traffic congestion.

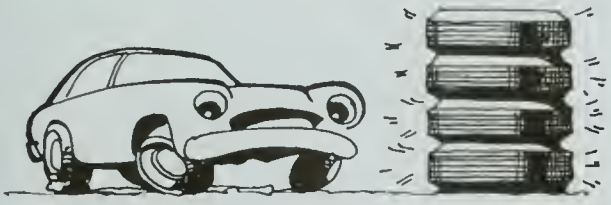
Choose Your Route For Fuel Economy



Sometimes a longer route consumes less gas than a shorter one.

- Try to make use of freeways and interstates. Congested, stop-and-go city routes waste time and gas.
- Use streets with fewer stoplights and stop signs.
- Rough or loose road surfaces cause between 10% and 30% fuel economy losses.
- Choose a slightly longer flat route, instead of a shorter hilly or mountain road.

Keep Tire Pressure Up



If your tires are under-inflated, figure on a 5% reduction in your gas mileage. Save 1 gallon out of every 20, if you:

Keep your tires inflated to the recommended maximum; but don't over-inflate. (Over-inflated tires cause rapid wear, less road contact and a safety hazard.)

Check your tire pressure frequently, at least once a month.

Choose radials when purchasing new tires. Steel-belted radials–in particular–offer 5-10% fuel savings by reducing rolling resistance.

Don't forget alignment. Improperly aligned tires wear faster and cut down on fuel economy as much as 0.3 miles per gallon.

Stay away from wide-track tires if you want top mileage from your car. The narrower the tread width of the tire, the better its gas-conserving qualities.

Snow tires cost you one to three miles per gallon, so as soon as they are not needed, take them off.

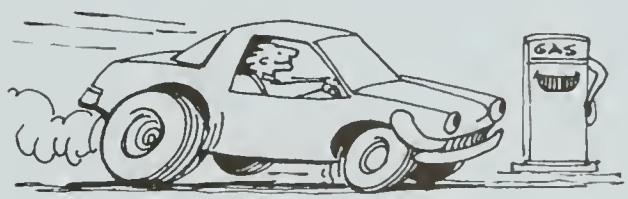
Maintain Your Car For Fuel Economy

Your car can't get its best gas mileage if it's sputtering, missing and running roughly because it's out of tune. For instance:

- One worn spark plug reduces your mileage 7% at 55.
- Two plugs misfiring will reduce your mileage by 20%.
- Too high an idle speed simply eats gas when you're idling or coasting. Set your idle speed as low as possible.

A regular tune-up every 10,000 miles can save your fuel money and reduce engine wear:

- Install new spark plugs, ignition points and condenser.
- Check electrical ignition circuits and connections for voltage drop and resistance. Clean, tighten and replace as necessary.
- Inspect the choke for proper operation. One that sticks will waste gas.
- Set the timing to the manufacturer's specifications.
- Check ignition advance mechanism (mechanical and vacuum
- Remove foreign matter from the exhaust gas recirculatory valve and hoses and check the controls, following the manufacturer's specifications.
- Check radiator thermostat; if defective it will increase fuel consumption.
- Check the exhaust system for blockage.
- Replace the air and fuel filter elements.
- Check for fuel leaks at carburetor, fuel pump, gas line and gas tank.
- Record your mileage figures each time you fill your tank. Compete against yourself to see if you can get better mileage on each tankful.



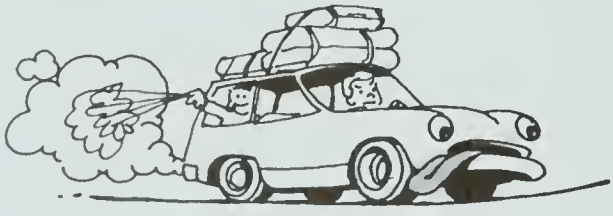
Fuel Economy Pays

Compute Your Own Mileage With This Handy Chart

Gallons used	Miles Per Gallon (MPG)														
	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
4			64	72	80	88	96	104	112	120	128	136	144	152	160
5	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
6	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240
7	84	98	112	126	140	154	168	182	196	210	224	238	252	266	280
8	96	112	128	144	160	176	192	208	224	240	256	272	288	304	320
9	108	126	144	162	180	198	216	234	252	270	288	306	324	342	360
10	120	140	160	180	200	220	240	260	280	300	320	340	360	380	400
11	132	154	176	198	220	242	264	286	308	330	352	374	396	418	440
12	144	168	192	216	240	264	288	312	336	360	384	408	432	456	480
13	156	182	208	234	260	286	312	338	364	390	416	442	468	494	520
14	168	196	224	252	280	308	336	364	392	420	448	476	504	532	560
15	180	210	240	270	300	330	360	390	420	450	480	510	540	570	600
16	192	224	256	288	320	352	384	416	448	480	512	544	576	608	640
17	204	238	272	306	340	374	408	442	476	510	544	578	612	646	680
18	216	252	288	324	360	396	432	468	504	540	576	612	648	684	720
19	228	266	304	342	380	418	456	494	532	570	608	646	684	722	760
20	240	280	320	360	400	440	480	520	560	600	640	680	720	760	800
	Miles Traveled														

Reduce Wind Resistance

Wind resistance creates a drag on your gas mileage figure. A smooth car, aerodynamically speaking, cuts through the wind barrier more quickly and more efficiently.



- Close windows at speeds over 40 to 45 mph.
- Remove luggage or ski racks when not in use.

Montana Department of
Natural Resources and Conservation

DNRC

1520 East Sixth Avenue
P.O. Box 202301
Helena, MT 59620-2301
(406) 444-6667

Energizing Alternatives

If you must drive, drive conservatively. But when possible, consider these alternatives:

- Walk to work or to your destination.
- Try bicycling.
- Ride the bus the whole distance; or drive to an outlying area and walk the remaining distance to avoid traffic congestion and parking.

You might even rediscover the pleasures of walking or biking in our society that has become dependent on the singular or "auto"-mobile.

PRINTED ON RECYCLED PAPER